

cent of trimethyl siloxy unit (viscosity of the mixture of components (a) and (b): 1,000,000 cs. or below at 25° C.). The silicone sponge rubber was composed of foams lacking in uniformity and was found to have a tensile strength of only 10 kg./cm.².

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A silicone sponge rubber was prepared as described in Example 2 excepting that (i) an organopolysiloxane gum as used in Example 3 was employed as component (a) in an amount of 80 parts, (ii) a diorganopolysiloxane was employed as component (b) in an amount of 20 parts. It had a viscosity of about 7,000,000 cs. at 25° C., and consisted of 96.975 mole percent of dimethylsiloxy unit, 3 mole percent of methyl vinyl siloxy unit and 0.025 mole percent dimethylvinyl siloxy unit, and (iii) hydrogen polysiloxane was employed as component (c) in an amount of 0.1 part. It had a viscosity of 200 cs. at 25° C. and consisted of 44 mole percent of (CH₃)₂SiO unit, 12 mole percent of H(CH₃)SiO unit, and CH₃SiO_{1.5} unit. The prepared silicone sponge rubber was found to have poor elastic properties and a tensile strength of only 16 kg./cm.². This was due to the scarcity of Si—H linkages relative to the total amount of the vinyl groups contained in the organopolysiloxane. Additionally the silicone sponge rubber was composed of foams, about half of which were found to be independent of each other.

EXAMPLE 4

90 parts of diorganopolysiloxane gum (component (a)), as was employed in Example 1, 10 parts of diorganopolysiloxane gum component (b)), having a viscosity of 6,000,000 cs. at 25° C., and consisting of 97.975 mole percent of dimethyl siloxy unit, 2 mole percent of methylvinyl siloxy unit, and 0.025 mole percent of dimethylvinyl siloxy unit, (viscosity of the mixture of (a) and (b): 5,000,000 cs.), 2.5 parts of methylhydrogen polysiloxane (component (c)), as was employed in Example 2, 40 parts of fumed silica (component (d)), 3 parts of dinitrosopentamethylenetetramine (component (e)), 0.002 part of chloroplatinic acid-n-butylamine (component (f)), and 4 parts of diphenylsilanediol were kneaded and cured by the same methods as described in Example 1. A silicone sponge rubber, consisting of comparatively rage foams, most of which were continuous was obtained. The physical properties of the product were found to be as follows:

Apparent density: 0.33

Tensile strength: 21 kg./cm.²

Elongation: 300%

Flame retardant property: Observed

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80 parts of diorganopolysiloxane gum (component (a)), as was employed in Example 1; 20 parts of diorganopolysiloxane gum (component (b)), having a viscosity of about 6,000,000 cs. at 25° C., and consisting of 98.975 mole percent of dimethylsiloxy unit, 1 mole percent of methylvinyl siloxy unit, and 0.025 mole percent of dimethylvinyl siloxy unit (viscosity of the mixture of (a) and (b): 5,000,000 cs.), 2.5 parts of methylhydrogen polysiloxane (component (c)), and 40 parts of fumed silica (component (d)) as was employed in Example 2, 3 parts of dinitrosopentamethylenetetramine (component (e)), 0.002 part of chloroplatinic acid-n-butylamine (component (f)), and 4 parts of diphenylsilanediol were kneaded and cured by the same methods as described in Example 1. A silicone sponge rubber, consisting of comparatively fine foams, most of which were independent of each other, was obtained. The physical properties of the product were found to be as follows:

Apparent density: 0.35

Tensile strength: 17 kg./cm.²

Elongation: 310%

Flame retardant property: Observed

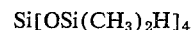
What is claimed is:

1. A silicone elastomeric composition comprising:

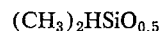
- (a) from 80 to 99 parts by weight of a diorganopolysiloxane gum, consisting of a first siloxy unit represented by the formula: (R₂SiO) wherein R is a methyl or phenyl radical, and a second siloxy unit represented by the unit formula: (CH₂=CHR'SiO) wherein R' is a methyl or phenyl radical and whose molecular chains are terminated by a monovalent radical selected from the group consisting of hydroxyl, methyl, trifluoropropyl, phenyl and vinyl group, having a viscosity of at least 1,000,000 cs. at 25° C., and containing from 0.025 to 0.25 mole percent of vinyl group containing siloxy units in its molecule;
- (b) from 1 to 20 parts by weight of diorganopolysiloxane, consisting of a first siloxy unit represented by the formula: (R₂SiO) wherein R is a methyl or phenyl radical, and a second siloxy unit represented by the unit formula (CH₂=CHR'SiO) wherein R' is a methyl or phenyl radical and whose molecular chains are terminated by a monovalent radical selected from the group consisting of methyl, ethyl, phenyl and vinyl group, having a viscosity of at least 10 cs. at 25° C., and containing at least 10 times as many mole percent of vinyl group containing siloxy units in its molecule as is contained in one molecule of the diorganopolysiloxane gum;
- (c) organohydrogen polysiloxane in an amount such that its Si—H linkages are from 50 to 200 mole percent of the total amount of vinyl groups contained in the diorganopolysiloxane gum and the diorganopolysiloxane, the organohydrogen polysiloxane containing at least three Si—H linkages in its molecule
- (d) from 20 to 100 parts by weight of a reinforcing silica filler having a surface area of at least 150 m.²/g.;
- (e) from 1 to 10 parts by weight of a blowing agent; and
- (f) a catalytic amount of a platinum compound.

2. The elastomeric composition claimed in claim 1 in which a mixture of the diorganopolysiloxane gum and the diorganopolysiloxane has at 25° C. a viscosity of from 1,000,000 to 50,000,000 cs.

3. The elastomeric composition claimed in claim 1 in which the organohydrogen polysiloxane is selected from the group consisting of methylhydrogen polysiloxane whose molecular chains are terminated by a trialkylsilyl group, tetrasiloxanes represented by the formula



siloxane copolymers consisting of SiO₂ unit and



unit, and copolymers of methylhydrogen siloxane and dialkyl siloxane.

4. The elastomeric composition claimed in claim 1 in which the blowing agent is selected from the group consisting of azobisisobutyronitrile, dinitrosopentamethylenetetramine, N,N'-dimethyldinitrosoterephthalamide, and diamino benzene.

5. The elastomeric composition claimed in claim 1 in which the platinum compound is present in an amount such that the weight of platinum contained in it is from 1 to 100 p.p.m. of the total weight of the diorganopolysiloxane gum and the diorganopolysiloxane.

6. The elastomeric composition claimed in claim 1 in which the platinum compound is a soluble platinum compound selected from the group consisting of chloroplatinic acid, a complex of chloroplatinic acid and at least one of the following: ethylene, propylene, butadiene, and cyclohexane, and a complex of chloroplatinic acid, and alkylamine.

7. The elastomeric composition claimed in claim 1, further including a dispersing agent selected from the group consisting of low molecular siloxane esters and silanols.